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EXAMINER	
COUGHLAN, PETER D	

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2129	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No.	Applicant(s)
	10/716,640	STONEMAN, MARTIN L.
	Examiner	**Art Unit**
	Peter Coughlan	2129

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

Detailed Action

1. Claims 1-21 are pending in this application.

35 USC § 101

2. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 21 is rejected under 35 U.S.C. 101 for nonstatutory subject matter. If the "acts" of a claimed process manipulate only numbers, abstract concepts or ideas representing any of the foregoing, the acts are not being applied to appropriate subject matter. Schrader, 22 F.3d at 294-95, 30 USPQ2d at 1458-59. See MPEP 2100-12.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject

matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bauman et al in view of Kawamoto, and further in view of Hoecker, and further in view of Fan, and further in view of Poggio, and further in view of Sakaguchi, and further in view of Mattaboni, and further in view of Frank, (U. S. Patent 5412756, referred to as **Bauman**; U. S. Patent 5367454, referred to as **Kawamoto**; U. S. Patent 5325441, referred to as **Hoecker**; U. S. Patent 5371673, referred to as **Fan**; U. S. Patent 5416899, referred to as **Poggio**; 'Analysis and Synthesis of Facial Expression Using High-Difinition Wire Frame Model', referred to as **Sakaguchi**; U. S. Patent 4638445, referred to as **Mattaboni**; 'The data analysis handbook', referred to as **Frank**).

Claim 1.

Bauman teaches a) storing in such at least one simulated-humanoid autonomous decision system planning data providing plan capability to such at least one simulated-humanoid autonomous decision system (**Bauman**, abstract:1-4; Examiner's Note (EN) 'Storing' and 'simulated-humanoid autonomous decision system' of applicant is equivalent to 'database' and 'artificial intelligence' of Baumen.);

b) using information about such set of environmental circumstances of such at least one simulated-humanoid autonomous decision system and such plan capability,

computing at least one current planning selection (**Bauman**, C34:39-49; EN 'Environmental circumstances' and 'current planning selection' of applicant is equivalent to 'normal circumstances' & 'malfunctions' and 'requested by the system for additional information' of Baumen.);

c) using information about such at least one current planning selection, computing at least one current planning status (**Bauman**, C34:39-49; EN In this paragraph, Bauman illustrates a 'perform a procedure' as the status.) ;

Bauman does not teach using information about such at least one current planning status, computing current simulated-emotion-source data. Kawamoto teaches using information about such at least one current planning status, computing current simulated-emotion-source data. (**Kawamoto**, C5:28-40; EN 'Computing current simulated-emotion-source data' is equivalent to 'denotes a register for the intensity for each of the eight basic emotions'. It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for providing current simulated-emotion expression in at least one simulated-humanoid autonomous decision system having at least one ability to assess a set of environmental circumstances of Bauman, by using information about such at least one current planning status, computing current simulated-emotion-source data by Kawamoto.

This keeps a current standing values of emotions if needed.

Bauman does not teach using such current simulated-emotion-source data, computing current simulated-emotion status. Kawamoto teaches using such current

simulated-emotion-source data, computing current simulated-emotion status (**Kawamoto**, C5:41-53; EN Here Kawamoto teaches how emotions are updated (status).). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for providing current simulated-emotion expression in at least one simulated-humanoid autonomous decision system having at least one ability to assess a set of environmental circumstances of Bauman, by using such current simulated-emotion-source data, computing current simulated-emotion status by Kawamoto.

This is useful for information correlation in view of decision similarity.

Claim 2.

Bauman teaches a) storing in such at least one simulated-humanoid autonomous decision system a subset of such planning data comprising at least one first plan regarding an extent to which at least one other (non-self) creature of such set of environmental circumstances is copying with such at least one simulated-humanoid autonomous decision system (self) (**Bauman**, C5:10-19; EN 'Non-self' and 'simulated-humanoid autonomous decision system (self)' of applicant is equivalent to 'user' and 'expert system knowledge sources' of Bauman);

b) computing at least one such extent of at least one such copying by making at least one similarity comparison of at least one decision of such at least one other (non-self) creature when in at least one first circumstance-in-relation-to-itself to at least one

decision of such at least one simulated-humanoid autonomous decision system (self) if in such at least one first circumstance-in-relation-to-itself (**Bauman**, C17:40-42);

c) computationally evaluating such at least one similarity comparison for extent of decision similarity (**Bauman**, C18:15-22; 'Evaluating by applicant is equivalent to 'whenever a score is greater than a predefined percentage of the maximum possible score' of Bauman.).

Bauman does not teach including in such current simulated-emotion-source data, information correlated with such extent of decision similarity. Kawamoto teaches in such current simulated-emotion-source data, information correlated with such extent of decision similarity (**Kawamoto**, C1:6-10; EN 'Correlated' of applicant is equivalent to 'relates' of Kawamoto.). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for providing current simulated-emotion expression in at least one simulated-humanoid autonomous decision system having at least one ability to assess a set of environmental circumstances of Bauman, by using current simulated-emotion-source data, information correlated with such extent of decision similarity by Kawamoto.

For the purpose of making the correct links from the input to the database in regards to input data and resulting emotions.

Bauman does not teach including, in such current simulated-emotion status, at least one status of copying simulated emotion of such at least one simulated-humanoid autonomous decision system. Kawamoto teaches including, in such current simulated-

emotion status, at least one status of copying simulated emotion of such at least one simulated-humanoid autonomous decision system (**Kawamoto**, C5:41-53; EN 'Copying' of applicant is equivalent to 'revises' of Kawamoto.). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for providing current simulated-emotion expression in at least one simulated-humanoid autonomous decision system having at least one ability to assess a set of environmental circumstances of Bauman, by including, in such current simulated-emotion status, at least one status of copying simulated emotion of such at least one simulated-humanoid autonomous decision system by Kawamoto.

For the purpose of using the information of the current simulated-emotion status, the system has to have the ability to copy it from where it is stored.

Claim 3.

The combination of Bauman and Kawamoto do not teach assigning to such at least one non-self creature at least one kind-number representing at least one extent of relative similarity of such at least one non-self creature to such self s own kind. Hoecker teaches assigning to such at least one non-self creature at least one kind-number representing at least one extent of relative similarity of such at least one non-self creature to such self s own kind (**Heocker**, C9:32-45; EN 'Non-self' and 'self' of applicant is equivalent to 'user' and 'author' of Hoecker.). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for providing current simulated-emotion expression in

at least one simulated-humanoid autonomous decision system having at least one ability to assess a set of environmental circumstances of the combination of Bauman and Kawamoto, by assigning to such at least one non-self creature at least one kind-number representing at least one extent of relative similarity of such at least one non-self creature to such self s own kind as taught by Hoecker.

For the purpose of giving the system a flexible interface in regards to 'non-self' relative similarity to the system due to the fact that most 'non-self' are different from one another.

The combination of Bauman and Kawamoto does not teach computationally adjusting such at least one kind-number to at least partially reflect such at least one similarity comparison for extent of decision similarity by such at least one non-self creature. Hoecker teaches computationally adjusting such at least one kind-number to at least partially reflect such at least one similarity comparison for extent of decision similarity by such at least one non-self creature (**Hoecker**, C9:42-57; EN 'Adjusting' of applicant is equivalent to 'rating process' of Hoecker.). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for providing current simulated-emotion expression in at least one simulated-humanoid autonomous decision system having at least one ability to assess a set of environmental circumstances of the combination of Bauman and Kawamoto, by computationally adjusting such at least one kind-number to at least partially reflect such at least one similarity comparison for extent of decision similarity by such at least one non-self creature as taught by Hoecker.

For the purpose of having the system to adjust it's output as 'non-self' change in ability.

Claim 4.

Bauman does not teach the step of computationally assigning at least one current copying simulated-emotion amount, for association with such at least one current status of copying simulated-emotion of such current simulated-emotion status of such at least one simulated-humanoid autonomous decision system, essentially proportional to such at least one current kind-number associated with such at least one non-self creature. Kawamoto teaches the step of computationally assigning at least one current copying simulated-emotion amount, for association with such at least one current status of copying simulated-emotion of such current simulated-emotion status of such at least one simulated-humanoid autonomous decision system, essentially proportional to such at least one current kind-number associated with such at least one non-self creature (**Kawamoto**, C5:54-59; EN 'Computationally assigning' of applicant is equivalent to 'change of basic emotions' of Kawamoto. Being proportional to a kind-number of a non-self creature can be linked to ability to perform the task. If the non-self creature has a novice understanding of the task, there should be high levels of hopelessness. Likewise, if the non-self creature has an expert level of abilities to perform the task a low level of hopelessness emotion would be proportional to the kind-number.). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for

providing current simulated-emotion expression in at least one simulated-humanoid autonomous decision system having at least one ability to assess a set of environmental circumstances of Bauman, by the step of computationally assigning at least one current copying simulated-emotion amount, for association with such at least one current status of copying simulated-emotion of such current simulated-emotion status of such at least one simulated-humanoid autonomous decision system, essentially proportional to such at least one current kind-number associated with such at least one non-self creature as taught by Kawamoto.

For the purpose of having a relationship between the emotional level and the kind-number is so the system can react appropriately to the non-self creature.

Claim 5.

Bauman teaches a) a set of hierarchically-organized abstract self-problem representations (**Bauman**, C7:22-32; EN 'Hierarchically-organized' of applicant is equivalent to 'hierarchy of information slots at different levels' of Bauman.);

b) in association with essentially each of such abstract self-problem representations, a set of hierarchically-organized abstract self-plan representations each comprising a set of abstract self-subgoal representations (**Bauman**, C7:33-46; EN 'Self-plan' and 'self-subgoal' of applicant is equivalent to 'lower levels' and 'series of steps' of Bauman.).

Claim 6.

Bauman teaches a) a set of hierarchically-organized abstract self-problem representations (**Bauman**, C7:43-46; EN 'Self-problem' of applicant is equivalent to 'parameters used' of Bauman.);

and b) in association with essentially each of such abstract self-problem representations, a set of hierarchically-organized abstract self-plan representations each comprising a set of abstract self-subgoal representations (**Bauman**, C7:40-43; EN 'Self-subgoal' of applicant is equivalent to 'series of steps' of Bauman'.);

c) wherein at least one such abstract self-problem representation comprises at least one copying problem, about at least one extent of self-not-copying with at least one such non-self creature (**Bauman**, C9-5-13; EN 'One copying problem' of applicant is equivalent to 'User creates all the input files' of Bauman. Since the user creates 'all' the input files, the system takes the file from the user in the form of a non-self creature and performs a 'self-not copying' function. A non-self creature is inputting the data, then there is an associated kind number as well), a relevance of such at least one copying problem being essentially proportional to such at least one current kind-number associated with such at least one non-self creature (**Bauman**, C88:11-15; EN 'Relevance' of applicant is equivalent to 'best fits' of Bauman.).

Claim 7.

Bauman teaches a) a set of hierarchically-organized abstract self-problem representations(**Bauman**, C7:43-46; EN 'Self-problem' of applicant is equivalent to 'parameters used' of Bauman.); and

b) in association with essentially each of such abstract self-problem representations, a set of hierarchically-organized abstract self-plan representations each comprising a set of abstract self-subgoal representations (**Bauman**, C7:40-43; EN 'Self-subgoal' of applicant is equivalent to 'series of steps' of Bauman'.);

c) wherein at least one such abstract self-problem representation comprises at least one copying problem (**Bauman**, C9-5-13; EN 'One copying problem' of applicant is equivalent to 'User creates all the input files' of Bauman), about at least one extent of at least one such non-self creature not-copying with such self (**Bauman**, C9-5-13; EN 'One copying problem' of applicant is equivalent to 'User creates all the input files' of Bauman.), a relevance of such at least one copying problem being essentially proportional to such at least one current kind-number associated with such at least one non-self creature (**Bauman**, C88:11-15; EN 'Relevance' of applicant is equivalent to 'best fits' of Bauman.)

Claim 8.

Bauman does not teach incremental representations of current simulated-fear in amounts essentially hierarchically ordered according to such hierarchical set of self-problem representations. Kawamoto teaches incremental representations of current simulated-fear in amounts essentially hierarchically ordered according to such hierarchical set of self-problem representations (**Kawamoto**, C5:37-40 and C6:1-4; EN 'hierarchically ordered' of applicant is equivalent to 'storage table' of Kawamoto.). It would have been obvious to a person having ordinary skill in the art at the time of

applicant's invention, of a machine computational-processing system, for providing current simulated-emotion expression in at least one simulated-humanoid autonomous decision system having at least one ability to assess a set of environmental circumstances of Bauman, by using incremental representations of current simulated-fear in amounts essentially hierarchically ordered according to such hierarchical set of self-problem representations as taught by Kawamoto.

For the purpose of demonstrating the various levels of fear that can exist when presented with different hierarchical self-problems.

Bauman, Kawamoto and Hoecker do not teach incremental representations of current simulated-hopelessness in amounts depending essentially upon whether, in at least one such self-plan representation for at least one highest currently-relevant self-problem representation, no subgoal representations are currently relevant. Fan teaches incremental representations of current simulated-hopelessness in amounts depending essentially upon whether, in at least one such self-plan representation for at least one highest currently-relevant self-problem representation, no subgoal representations are currently relevant (**Fan**, C27:28-43 & C84:46-52; EN C27 illustrates the incremental section of the claim and C84 section illustrates hopelessness as a possible representation of a self-plan representation. It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for providing current simulated-emotion expression in at least one simulated-humanoid autonomous decision system having at least one ability to assess a set of environmental circumstances by the combination of Bauman,

Kawamoto and Hoecker, by using incremental representations of current simulated-hopelessness in amounts depending essentially upon whether, in at least one such self-plan representation for at least one highest currently-relevant self-problem representation, no subgoal representations are currently relevant as taught by Fan.

For the purpose of providing the system current simulated hoplessness which are comprised of incremental progression which is depending in at least one self plan.

Claim 9.

Bauman does not teach the step of using information about such current simulated-emotion status, computationally providing output signals to operate effectors to provide current simulated-emotion expression of such at least one simulated-humanoid autonomous decision system. Kawamoto teaches teach the step of using information about such current simulated-emotion status, computationally providing output signals to operate effectors to provide current simulated-emotion expression of such at least one simulated-humanoid autonomous decision system (**Kawamoto**, abstract). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for providing current simulated-emotion expression in at least one simulated-humanoid autonomous decision system having at least one ability to assess a set of environmental circumstances of Bauman, by using the step of using information about such current simulated-emotion status, computationally providing output signals to operate effectors to provide current

simulated-emotion expression of such at least one simulated-humanoid autonomous decision system as taught by Kawamoto.

For the purpose of generating computationally accurate simulated emotions based on current simulated emotion status.

Claim 10.

Bauman does not teach using information about such current simulated-emotion status, computationally providing output signals to operate effectors to provide current simulated-emotion expression of such at least one simulated-humanoid autonomous decision system. Kawamoto teaches using information about such current simulated-emotion status, computationally providing output signals to operate effectors to provide current simulated-emotion expression of such at least one simulated-humanoid autonomous decision system (**Kawamoto**, abstract). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for providing current simulated-emotion expression in at least one simulated-humanoid autonomous decision system having at least one ability to assess a set of environmental circumstances of Bauman, by using the step of using information about such current simulated-emotion status, computationally providing output signals to operate effectors to provide current simulated-emotion expression of such at least one simulated-humanoid autonomous decision system as taught by Kawamoto.

For the purpose of generating computationally accurate simulated emotions based on current simulated emotion status.

Bauman, Kawamoto, Hoecker and Fan do not teach b) wherein such current simulated-emotion expression comprises simulated-smiles and simulated-frowns; c) wherein such simulated-smiles are associated with such at least one simulated-humanoid autonomous decision system computing at least one relatively-high extent of at least one such non-self creature copying with such self; and d) wherein such simulated-frowns are associated with such at least one simulated-humanoid autonomous decision system computing at least one relatively-low extent of at least one such non-self creature copying with such self. Poggio teaches b) wherein such current simulated-emotion expression comprises simulated-smiles and simulated-frowns; c) wherein such simulated-smiles are associated with such at least one simulated-humanoid autonomous decision system computing at least one relatively-high extent of at least one such non-self creature copying with such self; and d) wherein such simulated-frowns are associated with such at least one simulated-humanoid autonomous decision system computing at least one relatively-low extent of at least one such non-self creature copying with such self (**Poggio**, C5:1-10; EN 'Simulated-smiles' and 'relatively-high extent' of applicant is equivalent to 'full smile' and 'parameter value z=1' of Poggio. 'Simulated-frowns' and 'relatively-low extent' of applicant is equivalent to 'frown' and 'parameter value z=3' of Poggio.). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for providing current simulated-emotion expression in

at least one simulated-humanoid autonomous decision system having at least one ability to assess a set of environmental circumstances of the combination of Bauman, Kawamoto, Hoecker and Fan, by b) wherein such current simulated-emotion expression comprises simulated-smiles and simulated-frowns; c) wherein such simulated-smiles are associated with such at least one simulated-humanoid autonomous decision system computing at least one relatively-high extent of at least one such non-self creature copying with such self; and d) wherein such simulated-frowns are associated with such at least one simulated-humanoid autonomous decision system computing at least one relatively-low extent of at least one such non-self creature copying with such self as taught by Paggio.

By using current emotional status generation of a smile or a frown is used for the purpose of indicating expression as output.

Claim 11.

The combination of Bauman, Kawamoto and Hoecker do not teach wherein such current simulated-emotion-source data further comprises data regarding current simulated-frustration. Fan teaches wherein such current simulated-emotion-source data further comprises data regarding current simulated-frustration (**Fan**, C63:11-34; EN 'Frustration' of applicant is equivalent to 'dissatisfaction' of Fan.). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for providing current simulated-emotion expression in at least one simulated-humanoid autonomous decision system having at

least one ability to assess a set of environmental circumstances of the combination of Bauman, Kawamoto and Hoecker, by using current simulated-emotion-source data further comprises data regarding current simulated-frustration as taught by Fan.

For the purpose of providing an emotional status of frustration in view of current emotional source data.

Bauman does not teach current simulated-surprise. Kawamoto teaches current simulated-surprize (**Kawamoto**, Fig. 5 and C3:65-66; EN Kawamoto illustrates the 8 basic emotions which surprise is one of them.). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for providing current simulated-emotion expression in at least one simulated-humanoid autonomous decision system having at least one ability to assess a set of environmental circumstances of Bauman, by using current simulated-surprise as taught by Kawamoto.

For the purpose of having access to one of the basic emotional elements gives the machine a groundwork for further development if desired.

Bauman, Kawamoto, Hoecker, Fan and Poggio do not teach current simulated-muscle-relief. Sakaguchi teaches current simulated-muscle-relief (**Sakaguchi**, p196, C1-11 and table 1.; EN Table 1 illustrates a number of facial muscles than can be activated to show different expressions. If they are not activated, then they are relaxed.). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for providing current simulated-emotion expression in at least one simulated-humanoid autonomous decision

system having at least one ability to assess a set of environmental circumstances the combination of Bauman, Kawamoto, Hoecker, Fan and Poggio, by using current simulated-muscle-relief as taught by Sakaguchi.

For the purpose of accurately displaying facial expressions it is as important to activate some 'simulated muscles' and not activate other 'simulated muscles'.

Claim 12.

Bauman does not teach computationally processing such temporally-incremental input data about such series of such environmental situations to provide a temporally-incremental series, respectively, of "present" self-situation representations of such respective environmental situations. Kawamoto teaches computationally processing such temporally-incremental input data about such series of such environmental situations to provide a temporally-incremental series, respectively, of "present" self-situation representations of such respective environmental situations (**Kawamoto**, C6:1-4; EN The tables of Kawamoto represent the 'present' self situation of applicant.). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for implementing decisions of at least one autonomous decision system in environmental situations, such at least one autonomous decision system having at least one input system for providing temporally-incremental input data about a series of such environmental situations of

Bauman, by computationally processing such temporally-incremental input data about such series of such environmental situations to provide a temporally-incremental series, respectively, of "present" self-situation representations of such respective environmental situations as taught by Kawamoto.

For the purpose of holding an accurate standings of 'present' values to provide a temporally incremental series as they occur.

The combination of Bauman and Kawamoto do not teach each such "present" self-situation representation comprises a self representation and a set of event representations, each such event representation being represented spacio-temporally relative to each such self representation, wherein each such event representation. Hoecker teaches each such " representations, each such event representation being represented spacio-temporally relative to each such self representation, wherein each such event representation (**Hoecker**, C7:48-54; EN 'Set of event representation' of applicant is equivalent to 'each line segment of the incremental vector' of Hoecker.). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for implementing decisions of at least one autonomous decision system in environmental situations, such at least one autonomous decision system having at least one input system for providing temporally-incremental input data about a series of such environmental situations of the combination Bauman and Kawamoto, by using each such "present" self-situation representation comprises a self representation and a set of event representations, each

such event representation being represented spacio-temporally relative to each such self representation, wherein each such event representation as taught by Hoecker.

For the purpose of having a consistence methodology of calculating 'present' self-situation and the factors that shape the outcome. present" self-situation representation comprises a self representation and a set of event

The combination of Bauman, Kawamoto, Hoecker, Fan and Poggio do not teach at least one behavioral-type designation selected from a set of behavioral-type designations, each such at least one behavioral-type designation of such set of behavioral-type designations being associated with a set of incremental behavioral self-tendencies for determining incrementally-predicted self-situation representations from each such "present" self-situation representation. Sakaguchi teaches at least one behavioral-type designation selected from a set of behavioral-type designations, each such at least one behavioral-type designation of such set of behavioral-type designations being associated with a set of incremental behavioral self-tendencies for determining incrementally-predicted self-situation representations from each such "present" self-situation representation (**Sakaguchi**, p196, C1, table 1.; EN In table 1 there is a listing (or set) of behavior type designations.). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for implementing decisions of at least one autonomous decision system in environmental situations, such at least one autonomous decision system having at least one input system for providing temporally-incremental input data about a series of such environmental situations of the combination Bauman,

Kawamoto, Hoecker, Fan and Poggio, by using at least one behavioral-type designation selected from a set of behavioral-type designations, each such at least one behavioral-type designation of such set of behavioral-type designations being associated with a set of incremental behavioral self-tendencies for determining incrementally-predicted self-situation representations from each such "present" self-situation representation as taught by Sakaguchi.

For the purpose of having a simple design for ease of modification. If there exists a set of behavioral-type designations, then adding or deleting from the set for future design needs becomes easier.

The combination of Bauman, Kawamoto, Hoecker, Fan and Poggio do not teach a set of current-behavior designations associated with each such event representation specifying the current behaviors of each such event representation. Sakaguchi teaches a set of current-behavior designations associated with each such event representation specifying the current behaviors of each such event representation (**Sakaguchi**, p196, C1:12 through C2:31; EN 'Current behaviour designations' of applicant is equivalent to emotion of Sakaguchi. It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for implementing decisions of at least one autonomous decision system in environmental situations, such at least one autonomous decision system having at least one input system for providing temporally-incremental input data about a series of such environmental situations of the combination Bauman, Kawamoto, Hoecker, Fan and Poggio, by using a set of current-behavior designations associated with each such

event representation specifying the current behaviors of each such event representation as taught by Sakaguchi.

For the purpose of using events to generate a specific behavior designation

The combination of Bauman, Kawamoto and Hoecker do not teach computationally processing data regarding at least one such "present" self-situation representation of such respective environmental situation to determine the representations of a set of incrementally-predicted self-situations, predicted as incremental consequences from such at least one "present" self-situation representation. Fan teaches computationally processing data regarding at least one such "present" self-situation representation of such respective environmental situation to determine the representations of a set of incrementally-predicted self-situations, predicted as incremental consequences from such at least one "present" self-situation representation (**Fan**, C1:12-15). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for implementing decisions of at least one autonomous decision system in environmental situations, such at least one autonomous decision system having at least one input system for providing temporally-incremental input data about a series of such environmental situations of the combination Bauman, Kawamoto and Hoecker, by computationally processing data regarding at least one such "present" self-situation representation of such respective environmental situation to determine the representations of a set of incrementally-predicted self-situations, predicted as

incremental consequences from such at least one "present" self-situation representation as taught by Fan.

For the purpose of being able to forecast potential consequences from a present state would aid is narrowing the search and thus be more efficient.

Bauman teaches a hierarchical set of n problem representations (**Bauman**, C7:22-32; EN 'Hierarchical set' of applicant is equivalent to 'hierarchy of information slots at different levels' of Bauman.).

Bauman teaches m plan-sets of hierarchical subgoal representations, each said plan-set of hierarchical subgoal representations being associated with at least one of said set of n problem representations (**Bauman**, C7:40-43; EN 'Subgoals' of applicant is equivalent to 'subprocesses' of Bauman.).

Bauman teaches computationally comparing such data for hierarchical planning with such data about each such "present" self-situation representation and each such incrementally-predicted self-situation to determine i) at least one self-relevancy of each such presented self-situation representation (**Bauman**, C88:11-15; 'Self-relevancy' of applicant is equivalent to 'fits the need of the user' of Bauman.) , and ii) at least one self-relevancy of each such incrementally-predicted self-situation representation (**Bauman**, C88:11-15; EN 'Best fits the need of the user' of Bauman is equivalent to 'self-relevancy of each such incrementally-predicted' of applicant.

Bauman does not teach any threat to and any opportunity of such at least one autonomous decision system may be determined. Kawamoto teaches any threat to and

any opportunity of such at least one autonomous decision system may be determined (**Kawamoto**, C4:25-29; EN 'Threat to and opportunity' of applicant is equivalent to 'plans' of Kawamoto.). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for implementing decisions of at least one autonomous decision system in environmental situations, such at least one autonomous decision system having at least one input system for providing temporally-incremental input data about a series of such environmental situations of Bauman, by using any threat to and any opportunity of such at least one autonomous decision system may be determined as taught by Kawamoto.

For the purpose of being able to foresee possible future situations and act accordingly.

Claim 13.

Bauman does not teach from such information determined about any such threat to and any such opportunity of such at least one autonomous decision system, computationally determining at least one decision of such autonomous decision system. Kawamoto teaches from such information determined about any such threat to and any such opportunity of such at least one autonomous decision system, computationally determining at least one decision of such autonomous decision system (**Kawamoto**, C4:25-29; EN 'The scheduling actions unit' of Kawamoto makes at least one decision and 'plans to remove or erase a schedule' on it's own behalf for the users intent.). It would have been obvious to a person having ordinary skill in the art at the time of

applicant's invention, of a machine computational-processing system, for implementing decisions of at least one autonomous decision system in environmental situations, such at least one autonomous decision system having at least one input system for providing temporally-incremental input data about a series of such environmental situations of Bauman, by such information determined about any such threat to and any such opportunity of such at least one autonomous decision system, computationally determining at least one decision of such autonomous decision system as taught by Kawamoto.

For the purpose of making interaction with a user easier for the user by eliminating some possible plans of actions or detecting warning signs and eliminating related plans to avoid negative situations.

Claim 14.

Bauman teaches a)computationally determining which of such hierarchical set of n problems includes at least one such "present" self-situation representation b) computationally determining which of such hierarchical subgoal representations includes at least one such "present" self-situation representation(**Bauman**, C7:22-43; EN Bauman is a patent for Artificial Intelligence for use in a plant operation. Within the operation of the plant where raw materials go in and a final product results there are different levels and goals depending on what stage of the operation. Bauman uses the terms 'processing' and 'subprocesses' which are equivalent to 'hierarchical' and ;hierarchical subgoal' of applicant.)

The combination of Bauman, Kawamoto, Hoecker Fan and Poggio do not teach computationally determining which of such problem representations and which of such subgoal representations include at least one such incrementally-predicted self-situation representation. Sakaguchi teaches computationally determining which of such problem representations and which of such subgoal representations include at least one such incrementally-predicted self-situation representation (**Sakaguchi**, p196, C1:12 through C2:31; EN The subgoal of Sakaguchi is the 'action units' for each emotion. An emotion is made up of one or more 'action units'.). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for implementing decisions of at least one autonomous decision system in environmental situations, such at least one autonomous decision system having at least one input system for providing temporally-incremental input data about a series of such environmental situations of the combination Bauman, Kawamoto, Hoecker, Fan and Poggio, by computationally determining which of such problem representations and which of such subgoal representations include at least one such incrementally-predicted self-situation representation as taught by Sakaguchi.

For the purpose of defining a goal, all he requirements of the subgoals must be met as well.

Claim 15.

Bauman does not teach a) computationally specifying at least one self trial decision for use in what-iffing; and b) computationally determining, using such at least

one self trial decision, at least one set of such incrementally-predicted self-situation representations. Kawamoto teaches a) computationally specifying at least one self trial decision for use in what-iffing; and b) computationally determining, using such at least one self trial decision, at least one set of such incrementally-predicted self-situation representations (**Kawamoto**, C7:34-38; EN 'What-iffing' of applicant is equivalent to 'trial and error' of Kawamoto. The 'desirable intensity constant' of Kawamoto is obtained by 'incrementally predicted self-situation' by parameter adjustment.). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for implementing decisions of at least one autonomous decision system in environmental situations, such at least one autonomous decision system having at least one input system for providing temporally-incremental input data about a series of such environmental situations of Bauman, by a) computationally specifying at least one self trial decision for use in what-iffing; and b) computationally determining, using such at least one self trial decision, at least one set of such incrementally-predicted self-situation representations as taught by Kawamoto.

For the purpose of using the ability of the system to reach a constant without user input.

Claim 16.

The combination of Bauman, Kawamoto, Hoecker, Fan and Poggio do not teach a) storing in at least one computational storage system data comprising non-linguistic discrete data-types and, conforming to each of such discrete non-linguistic data-types, a

set of non-linguistic discrete data elements. Sakagichi teaches storing in at least one computational storage system data comprising non-linguistic discrete data-types and, conforming to each of such discrete non-linguistic data-types, a set of non-linguistic discrete data elements (**Sakaguchi**, p196, table 1; EN 'Non-linguistic discrete data-types' and a 'set of non-linguistic discrete data elements' of applicant is equivalent to 'emotions' and 'action units' of Sakaguchi.). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for implementing decisions of at least one autonomous decision system in environmental situations, such at least one autonomous decision system having at least one input system for providing temporally-incremental input data about a series of such environmental situations of the combination Bauman, Kawamoto, Hoecker, Fan and Poggio, by a) storing in at least one computational storage system data comprising non-linguistic discrete data-types and, conforming to each of such discrete non-linguistic data-types, a set of non-linguistic discrete data elements as taught by Sakaguchi.

For the purpose of having a flexible database enables the system to be further expanded if needed.

The combination of Bauman, Kawamoto, Hoecker, Fan and Poggio do not teach b) storing in at least one computational storage system data i) respectively linking essentially each such discrete data-type of such simulated-humanoid autonomous decision system with a respective word/phrase category of at least one first natural language, and ii) respectively linking selected words/phrases of each such linked

word/phrase category of such at least one first natural language with respective such discrete data elements of each such discrete data-type so linked with a such linked word/phrase category. Sakaguchi teaches b) storing in at least one computational storage system data i) respectively linking essentially each such discrete data-type of such simulated-humanoid autonomous decision system with a respective word/phrase category of at least one first natural language, and ii) respectively linking selected words/phrases of each such linked word/phrase category of such at least one first natural language with respective such discrete data elements of each such discrete data-type so linked with a such linked word/phrase category (**Sakaguchi**, p196 table 1; EN 'discrete data-type with a respective word/phrase' of applicant is equivalent to emotion of Sakaguchi. Examples of which are 'surprise', 'fear', and 'sadness'. Linking selected words/phrases with discrete data elements' of applicant is equivalent to all the different 'action units' of Sakaguchi. Examples of which are 'Inner Brow Raiser' and 'Jaw Drop'.). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for implementing decisions of at least one autonomous decision system in environmental situations, such at least one autonomous decision system having at least one input system for providing temporally-incremental input data about a series of such environmental situations of the combination of Bauman, Kawamoto, Hoecker, Fan and Poggio, by storing in at least one computational storage system data i) respectively linking essentially each such discrete data-type of such simulated-humanoid autonomous decision system with a respective word/phrase category of at least one first

natural language, and ii) respectively linking selected words/phrases of each such linked word/phrase category of such at least one first natural language with respective such discrete data elements of each such discrete data-type so linked with a such linked word/phrase category as taught by Sakaguchi.

For the purpose of being easily identifiable functions/purpose is why linking in a first natural language should be used.

Bauman teaches using information about at least one set of current circumstances of such at least one simulated-humanoid autonomous decision system, computationally determining at least one relevance to the simulated-humanoid autonomous decision system of such current circumstances (**Bauman**, C88:11-15).

Bauman teaches d) using information about such at least one relevance, computationally specifying at least one set of relevant such non-linguistic discrete data elements (**Bauman**, C18:32-39; EN 'Non-linguistic discrete data elements' of applicant is equivalent to 'double' of Bauman).

Bauman, Kawamoto, Hoecker, Fan, Poggio and Sakaguchi do not teach e) using such specification of such at least one set of relevant such non-linguistic discrete data elements, computationally determining at least one first communication to be made by such simulated-humanoid autonomous decision system to transform such specified set of non-linguistic discrete data elements into such at least one first communication in such first natural language. Mattaboni teaches using such specification of such at least one set of relevant such non-linguistic discrete data elements, computationally determining at least one first communication to be made by such simulated-humanoid

autonomous decision system to transform such specified set of non-linguistic discrete data elements into such at least one first communication in such first natural language (**Mattaboni**, C17:20-29). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for implementing decisions of at least one autonomous decision system in environmental situations, such at least one autonomous decision system having at least one input system for providing temporally-incremental input data about a series of such environmental situations of the combination Bauman, Kawamoto, Hoecker, Fan, Poggio and Sakaguchi, by using such specification of such at least one set of relevant such non-linguistic discrete data elements, computationally determining at least one first communication to be made by such simulated-humanoid autonomous decision system to transform such specified set of non-linguistic discrete data elements into such at least one first communication in such first natural language as taught by Mattaboni.

For the purpose of providing a comfortable interaction between the system and user(s).

The combination of Bauman, Kawamoto, Hoecker, Fan, Poggio and Sakaguchi do not teach i) computationally processing data regarding identifying which of such discrete data elements of such discrete data-types is to form part of such at least one first communication, ii) computationally processing data regarding selecting natural-language snippets for pointing to the such categories of such natural-language corresponding to whichever of such discrete data-types includes each such discrete data element which is to form part of such at least one first communication, iii)

computationally processing data regarding selecting a word/phrase of such natural-language corresponding to each such discrete data element which is to form part of such at least one first communication, and iv) computationally processing data regarding producing from grammar practices of such natural language and from such snippet selections and from such word/phrase selections such at least one first communication in such natural language. Mattaboni teaches i) computationally processing data regarding identifying which of such discrete data elements of such discrete data-types is to form part of such at least one first communication, ii) computationally processing data regarding selecting natural-language snippets for pointing to the such categories of such natural-language corresponding to whichever of such discrete data-types includes each such discrete data element which is to form part of such at least one first communication, iii) computationally processing data regarding selecting a word/phrase of such natural-language corresponding to each such discrete data element which is to form part of such at least one first communication, and iv) computationally processing data regarding producing from grammar practices of such natural language and from such snippet selections and from such word/phrase selections such at least one first communication in such natural language (**Mattaboni**, C13:58 through C17:20; EN 'Computationally processing data regarding identifying which of such discrete data elements of such discrete data-types is to form part of such at least one first communication' of applicant is equivalent to 'the Parser' of Mattaboni. 'Computationally processing data regarding selecting natural-language snippets for pointing to the such categories of such natural-language corresponding to whichever of

such discrete data-types includes each such discrete data element which is to form part of such at least one first communication' of applicant is equivalent to 'Type Identifier' of Mattaboni. 'Computationally processing data regarding selecting a word/phrase of such natural-language corresponding to each such discrete data element which is to form part of such at least one first communication' of applicant is equivalent to 'Sentence Structure Analyzer' of Mattaboni. 'Computationally processing data regarding producing from grammar practices of such natural language and from such snippet selections and from such word/phrase selections such at least one first communication in such natural language' of applicant is equivalent to 'Comprehensive Vocabulary Library' of Mattaboni.). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for implementing decisions of at least one autonomous decision system in environmental situations, such at least one autonomous decision system having at least one input system for providing temporally-incremental input data about a series of such environmental situations of the combination Bauman, Kawamoto, Hoecker, Fan, Poggio and Sakaguchi, by using i) computationally processing data regarding identifying which of such discrete data elements of such discrete data-types is to form part of such at least one first communication, ii) computationally processing data regarding selecting natural-language snippets for pointing to the such categories of such natural-language corresponding to whichever of such discrete data-types includes each such discrete data element which is to form part of such at least one first communication, iii) computationally processing data regarding selecting a word/phrase of such natural-

language corresponding to each such discrete data element which is to form part of such at least one first communication, and iv) computationally processing data regarding producing from grammar practices of such natural language and from such snippet selections and from such word/phrase selections such at least one first communication in such natural language as taught by Mattaboni.

For the purpose of the system to interact with an untrained operators effectively.

Claim 17.

The combination of Bauman, Kawamoto, Hoecker, Fan and Poggio do not teach storing in at least one computational storage system data comprising non-linguistic discrete data-types and, conforming to each of such discrete non-linguistic data-types, a set of non-linguistic discrete data elements. Sakagichi teaches storing in at least one computational storage system data comprising non-linguistic discrete data-types and, conforming to each of such discrete non-linguistic data-types, a set of non-linguistic discrete data elements (**Sakaguchi**, p196, table 1; EN 'Non-linguistic discrete data-types' and a 'set of non-linguistic discrete data elements' of applicant is equivalent to 'emotions' and 'action units' of Sakaguchi.). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for implementing decisions of at least one autonomous decision system in environmental situations, such at least one autonomous decision system having at least one input system for providing temporally-incremental input data about a series of such environmental situations of the combination Bauman,

Kawamoto, Hoecker, Fan and Poggio, by a) storing in at least one computational storage system data comprising non-linguistic discrete data-types and, conforming to each of such discrete non-linguistic data-types, a set of non-linguistic discrete data elements as taught by Sakaguchi.

For the purpose of having a flexible database enables the system to be further expanded if needed.

The combination of Bauman, Kawamoto, Hoecker, Fan and Poggio do not teach b) storing in at least one computational storage system data i) respectively linking essentially each such discrete data-type of such simulated-humanoid autonomous decision system with a respective word/phrase category of at least one first natural language, and ii) respectively linking selected words/phrases of each such linked word/phrase category of such at least one first natural language with respective such discrete data elements of each such discrete data-type so linked with a such linked word/phrase category. Sakaguchi teaches b) storing in at least one computational storage system data i) respectively linking essentially each such discrete data-type of such simulated-humanoid autonomous decision system with a respective word/phrase category of at least one first natural language, and ii) respectively linking selected words/phrases of each such linked word/phrase category of such at least one first natural language with respective such discrete data elements of each such discrete data-type so linked with a such linked word/phrase category (**Sakaguchi**, p196 table 1; EN 'discrete data-type with a respective word/phrase' of applicant is equivalent to emotion of Sakaguchi. Examples of which are 'surprise', 'fear', and 'sadness'. Linking

selected words/phrases with discrete data elements' of applicant is equivalent to all the different 'action units' of Sakaguchi. Examples of which are 'Inner Brow Raiser' and 'Jaw Drop'.). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for implementing decisions of at least one autonomous decision system in environmental situations, such at least one autonomous decision system having at least one input system for providing temporally-incremental input data about a series of such environmental situations of the combination of Bauman, Kawamoto, Hoecker, Fan and Poggio, by storing in at least one computational storage system data i) respectively linking essentially each such discrete data-type of such simulated-humanoid autonomous decision system with a respective word/phrase category of at least one first natural language, and ii) respectively linking selected words/phrases of each such linked word/phrase category of such at least one first natural language with respective such discrete data elements of each such discrete data-type so linked with a such linked word/phrase category as taught by Sakaguchi.

For the purpose of being easily identifiable functions/purpose is why linking in a first natural language should be used.

The combination of Bauman, Kawamoto, Hoecker, Fan Poggio and Sakaguchi do not teach computationally processing such incoming natural language sufficiently to provided data identifying each vocabulary element, snippet type for each such element, and grammatical function for each such element. Mattaboni teaches computationally processing such incoming natural language sufficiently to provided data identifying each

vocabulary element, snippet type for each such element, and grammatical function for each such element (**Mattaboni**, C13:27 through C17:19). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for implementing decisions of at least one autonomous decision system in environmental situations, such at least one autonomous decision system having at least one input system for providing temporally-incremental input data about a series of such environmental situations of the combination Bauman, Kawamoto, Hoecker, Fan, Poggio and Sakaguchi, by using computationally processing such incoming natural language sufficiently to provided data identifying each vocabulary element, snippet type for each such element, and grammatical function for each such element as taught by Mattaboni.

For the purpose that an untrained operator can utilize the system.

The combination of Bauman, Kawamoto, Hoecker, Fan Poggio and Sakaguchi do not teach computationally processing such identifying data to provide a non-natural-language concrete circumstance interpretation of such incoming natural language. Mattaboni teaches computationally processing such identifying data to provide a non-natural-language concrete circumstance interpretation of such incoming natural language (**Mattaboni**, C17:59 through C18:2). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for implementing decisions of at least one autonomous decision system in environmental situations, such at least one autonomous decision system having at least one input system for providing temporally-incremental

input data about a series of such environmental situations of the combination Bauman, Kawamoto, Hoecker, Fan, Poggio and Sakaguchi, by using a computationally processing such identifying data to provide a non-natural-language concrete circumstance interpretation of such incoming natural language as taught by Mattaboni.

For the purpose of being able to process the incoming natural language into a form that the system can easily handle.

Bauman teaches computationally determining at least one relevance to such at least one simulated-humanoid autonomous decision system of such circumstance interpretation (**Bauman**, C88:11-15; EN 'Relevance' of applicant is equivalent to 'best fits' of Bauman.).

Bauman teaches storing data regarding a set of hierarchically-organized, relevant, non-linguistic relational "self"-situations (**Bauman**, C7:22-26).

Bauman teaches computationally processing to determine inclusions of such non-natural-language concrete circumstance interpretation within such non-linguistic relational "self"-situations to determine any relevance of such non-natural-language concrete circumstance interpretation to such at least one simulated-humanoid autonomous decision system (**Bauman**, C7:26-32; EN 'Self-situations' of applicant is equivalent to 'representation of part of the plant' of Bauman.).

Bauman teaches wherein such data regarding such set of hierarchically-organized, relevant, non-linguistic relational "self"-situations includes data regarding (1) a set of hierarchically-organized problem relational "self"-situations, and (2) in association with essentially each of said problem relational "self"-situations, a set of

hierarchically-organized plan relational "self"-situations. (**Bauman**, C7:22-46; EN 'Hierarchically-organized' of applicant is equivalent to 'partitioning of the understanding of the plant" of Bauman. 'Set of hierarchically-organized plan relational' of applicant is equivalent to 'at lower levels, the processing can be seen to involve a series of steps or subprocesses'.).

Claim 18.

The combination of Bauman, Kawamoto, Hoecker, Fan Poggio and Sakaguchi do not teach interpreting simulated-humanoid autonomous decision system possesses abilities to select for use in interpretation similar cognitive, relevancy, and emotion systems to those of the at least one other. Mattaboni teaches teach interpreting simulated-humanoid autonomous decision system possesses abilities to select for use in interpretation similar cognitive, relevancy, and emotion systems to those of the at least one other (**Mattaboni**, C17:21-56; EN Mattaboni illustrates the system selecting to switch from the natural language processor to the decision engine.). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for implementing decisions of at least one autonomous decision system in environmental situations, such at least one autonomous decision system having at least one input system for providing temporally-incremental input data about a series of such environmental situations of the combination Bauman, Kawamoto, Hoecker, Fan, Poggio, Sakaguchi, by interpreting simulated-humanoid autonomous decision system possesses abilities to select for use in interpretation

similar cognitive, relevancy, and emotion systems to those of the at least one other as taught by Mattaboni.

For the purpose of the system to make it's own way through the steps needed to take in information and then process it.

Claim 19.

The combination of Bauman, Kawamoto, Hoecker, Fan Poggio and Sakaguchi do not teach computational processing of such incoming natural language comprises natural-language default-selecting to process data regarding selection of non-natural-language data types and data for correspondence with such incoming information. Mattaboni teaches computational processing of such incoming natural language comprises natural-language default-selecting to process data regarding selection of non-natural-language data types and data for correspondence with such incoming information (**Mattaboni**, C16:53-65; EN Mataboni illustrates incoming natural language being transformed into non-natural language. The examples shows a relationship between a 'type' of sentence vs sentence 'position' and the weights according.). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for implementing decisions of at least one autonomous decision system in environmental situations, such at least one autonomous decision system having at least one input system for providing temporally-incremental input data about a series of such environmental situations of the

combination Bauman, Kawamoto, Hoecker, Fan, Poggio and Sakaguchi, by using. computational processing of such incoming natural language comprises natural-language default-selecting to process data regarding selection of non-natural-language data types and data for correspondence with such incoming information as taught by Mattaboni.

For the purpose of analyzing the incoming natural language and transforming into a form which is easily handled by a computing environment.

Claim 20.

The combination of Bauman, Kawamoto, Hoecker, Fan Poggio and Sakaguchi do not teach computationally processing data regarding at least one story-series of such incoming information to provide at least one story-series of such non-natural-language concrete circumstance interpretation. Mataboni teaches computationally processing data regarding at least one story-series of such incoming information to provide at least one story-series of such non-natural-language concrete circumstance interpretation (**Mattaboni**, C13:27-57; EN 'One story-series' of applicant is equivalent to 'an operator sentence' of Mattaboni.). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for implementing decisions of at least one autonomous decision system in environmental situations, such at least one autonomous decision system having at least one input system for providing temporally-incremental input data about a series of such environmental situations of the combination Bauman, Kawamoto, Hoecker, Fan, Poggio

and Sakaguchi, by using computationally processing data regarding at least one story-series of such incoming information to provide at least one story-series of such non-natural-language concrete circumstance interpretation as taught by Mattaboni.

For the purpose of inputting in a single sentence supplied by the operator.

Bauman teaches computationally processing data regarding such at least one story-series of such non-natural-language concrete circumstance interpretation to provide at least one learned modification of at least one such non-linguistic discrete data element (**Bauman**, C48:17-20; EN 'Learned modification' of applicant is equivalent to modification rules' of Bauman.), and c) wherein such story-series of such non-natural-language concrete circumstance interpretation is treated as at least one temporally-incremental series, respectively, of "present" concrete self-situation representations of at least one temporally-incremental series of respective environmental situations (**Bauman**, C66:43-54; EN 'Temporally-incremental' of applicant is equivalent to 'adjustments made to the application' of Bauman.).

Claim 21.

The combination of Bauman, Kawamoto, Hoecker, Fan Poggio and Sakaguchi do not teach storing within such at least one autonomous decision system a large set of non-linguistic data "primitives", such primitives being structured and arranged to classify objects according to which subset of such primitives is assigned to a particular object; and b) computationally non-linguistically classifying particular objects; c) wherein such non-linguistic classifying comprises computationally assigning a representation

comprising a set of such primitives to a particular object, wherein such set of assigned primitives comprises information about behavioral tendencies of such particular object; d) wherein a less abstract such representation comprises n such primitives; e) wherein such assigned less-abstract representation may be made progressively more abstract by progressively removing subsets x of such assigned set of primitives. Mattaboni teaches storing within such at least one autonomous decision system a large set of non-linguistic data "primitives", such primitives being structured and arranged to classify objects according to which subset of such primitives is assigned to a particular object (**Mattaboni**, C14:4-15; EN 'Primitives' of applicant is equivalent to 'command words' of Mattaboni.); and b) computationally non-linguistically classifying particular objects(**Mattaboni**, C14:55-62); c) wherein such non-linguistic classifying comprises computationally assigning a representation comprising a set of such primitives to a particular object, wherein such set of assigned primitives comprises information about behavioral tendencies of such particular object (**Mattaboni**, C14:63-through C15:59; EN 'A set of such primitives' of applicant is equivalent to 'a lookup table" of Mattaboni.); d) wherein a less abstract such representation comprises n such primitives (**Mattaboni**, C18:24-28; EN 'Abstract' and 'primitives' of applicant is equivalent to "object or goal' and 'tokens' of Mattaboni.); e) wherein such assigned less-abstract representation may be made progressively more abstract by progressively removing subsets x of such assigned set of primitives (**Mattaboni**, C20:12-56 and C22:44-55; EN Mattaboni goes into detail with relying on pattern matching and the Decision Engine determining if there exists enough tokens (subsets) to match a pattern (abstract).). It would have been

obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for implementing decisions of at least one autonomous decision system in environmental situations, such at least one autonomous decision system having at least one input system for providing temporally-incremental input data about a series of such environmental situations of the combination Bauman, Kawamoto, Hoecker, Fan, Poggio and Sakaguchi, by storing within such at least one autonomous decision system a large set of non-linguistic data "primitives", such primitives being structured and arranged to classify objects according to which subset of such primitives is assigned to a particular object; and b) computationally non-linguistically classifying particular objects; c) wherein such non-linguistic classifying comprises computationally assigning a representation comprising a set of such primitives to a particular object, wherein such set of assigned primitives comprises information about behavioral tendencies of such particular object; d) wherein a less abstract such representation comprises n such primitives; e) wherein such assigned less-abstract representation may be made progressively more abstract by progressively removing subsets x of such assigned set of primitives as taught by Mattaboni. For the purpose of having a set of established primitives which the system can access and utilize. Classifying incoming data into non-linguistically objects so the system can compute their values in a digital form. By establishing a set of primitives to an object the system has a set which to compare a pattern to. The concept of an abstract or theme is assigned a given set of primitives which incoming data can be compared to. If not all primitives are not present, a decreased rating or level in abstract or theme can

still give the system a chance to make a comparison between incoming data and established abstract.

Bauman, Kawamoto, Hoecker, Fan, Poggio, Sakaguchi and Mattaboni do not teach f) wherein a most abstract such representation comprises one such assigned primitive (n-x=1). Frank teaches wherein a most abstract such representation comprises one such assigned primitive (n-x=1) (**Frank**, p100, h(*x*) = 1/(n – *x*) or (n – *x*) = 1). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention, of a machine computational-processing system, for implementing decisions of at least one autonomous decision system in environmental situations, such at least one autonomous decision system having at least one input system for providing temporally-incremental input data about a series of such environmental situations of the combination Bauman, Kawamoto, Hoecker, Fan, Poggio, Sakaguchi and Mattaboni, by using a most abstract such representation comprises one such assigned primitive (n-x=1)as taught by Frank.

The purpose of using an established analysis for computing the representation of a abstract will fit within the conventional standards of the industry.

Conclusion

4. The prior art of record and not relied upon is considered pertinent to the applicant's disclosure.

-'Intelligent Agents for Battlefield Simulation': J. W. Baxter & R. T. Hepplewhite.

-'Hierarchical Control for Autonomous Mobile Robots with Behavior-Decision Fuzzy Algorithm': Yoichiro Maeda, Minoru Tanabe, Morikazu Yuta and Tomohiro Takagi.

-U. S. Patent 5677997, Talatik

-U. S. Patent 6088689, Kohn et al.

-U. S. Patent 5873094, Talatik

-'Multi-Level Direction of Autonomous Creatures for Real-Time Virtual Environments': Bruce M. Blumberg & Tinsley A. Galyean.

-'Intelligent Control of Flexible Autonomous Robots Part II : Implementation': S. Jagannathan.

-'Extending the Behavioral Paradigm for Intelligent Systems': Craig A. Lindley.

-'Coactive Aesthetics and Control Theory': Ed Koch & David C. Gaw.

-'A Framework for Modeling Multi-Agent Systems': Lawrence Cavedon, Gil Tidhar & David Morley.

-'The Simulation of the Behavior and Evolution of Artificial Organisms': Ross Milward & Olivier de Vel.

-'Logic Programming for Robot Control': David Poole

-'A Logical Framework for Multi-Agent Systems and Joint Attitudes': Lawrence Cavedon & Gil Tidhar.

-'Rational Handing of Multiple Goals for Mobile Robots': Richard Goodwin & Reid Simmons.

-'Defending a Computer System using Autonomous Agents': Mark Crosbie & Gene Spafford.

-'Towards a Semantics of Desires': George Kiss & Han Reichgelt.

-'Modeling Information Retrieval Agents with Belief Revision': Brian Logan, Steven Reece & Karen Sparck Jones.

-'On the Role of BDI Modeling for Integrated Control and Coordinated Behavior in Autonomous Agents': Innes A. Ferguson.

-'Possibly Optimal Decision-Making Under Self-sufficiency and Autonomy': Emmet Spier & David McFarland

-'Interleaving Planning and Robot Execution for Asynchronous User Request': Karen Zita Haigh & Manuela Veloso.

-'Using Perception Information for Robot Planning and Execution': Karen Zita Haigh & Manuela Veloso.

-'Coactive Aesthetics and Control Theory': Ed Koch & David C. Gaw.

-'The Role of Emotion in Believable Agents': Joseph Bates

5. Claims 1-21 are rejected.

Correspondence Information

6. Any inquiry concerning this information or related to the subject disclosure should be directed to the Examiner Peter Coughlan, whose telephone number is (571) 272-5990. The Examiner can be reached on Monday through Friday from 7:15 a.m. to 3:45 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor David Vincent can be reached at (571) 272-3080. Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,

Washington, D. C. 20231;

Hand delivered to:

Receptionist,

Customer Service Window,

Randolph Building,

401 Dulany Street,

Alexandria, Virginia 22313,

(located on the first floor of the south side of the Randolph Building);

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Peter Coughlan

11/19/2005

P.E.